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HOUSEKEEPERS' CHAT Thursday, May 13, 1937

(FOR BROADCAST USE ONLY)

Subject: "THE DANGEROUS AGE FOR CHICKS." Information from A. R. Lee, Bureau of Animal Industry, U. S. Department of Agriculture.

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A stove isn't exactly a machine or a robot -- you know,- an automaton or mechanically devised creature that supplants human intelligence. But we're living in a more or less mechanized age, and it's interesting to find that the incubator, with its heater, has all but replaced the setting hen. In the same way, the artificial brooder supplies a regulated temperature and atmospheric conditions. It has become an effective substitute for the mother hen.

Our annual crop of baby chicks hatched in the United States is about a billion. A very large percentage of these chicks first see the light of day in an incubator on some commercial poultry farm. There are, of course, hundreds of thousands of chicks naturally hatched, too, in small home flocks on individual farms or even in towns. But more and more chicks every year owe their start in life to an incubator, and then they are transferred to an artificial brooder where a carefully controlled stove does the work of the mother hen for the next six or eight weeks. Many a farm housewife who formerly raised her own settings of eggs has found it more convenient and more profitable in the long run to buy day-old chicks from the large hatcheries and raise them by means of an artificial brooder.

Poultry specialists of the U. S. Department of Agriculture started out some 12 years ago to find out what caused the heavy losses reported by commercial poultry raisers who were using incubators. Their studies show definitely that best hatching results are obtained when a temperature of 100 degrees Fahrenheit is constantly maintained in a forced draft or cabinet incubator. That is, at this temperature the greatest percentage of chicks are successfully hatched and they are also superior in appearance and vitality.

The scientists also found that the humidity of the atmosphere in the incubator has an important effect on the number of chicks hatched. The best hatches are obtained when the humidity is 60 percent. The oxygen content of the atmosphere must be kept close to 21 percent by proper ventilation. The carbon dioxide content -- or obnoxious elements in the air -- should preferably remain below five-tenths of one percent. Most modern incubators have the necessary devices for controlling heat, humidity, and atmospheric content.

Hens are usually left with their young chicks as long as they will brood them. With an artificial brooder, the "brooding season" is understood to mean the period from hatching time until no artificial heat is required. Right now, in many parts of the country, baby chicks are the chief poultry problem. In many respects, poultry experts say, this is their most dangerous age. So many things can happen to them. When left with the mother hen, they may get out of the coop and catch cold. Or they get lice or poultry diseases

from the soil or from what they eat. Brooding hens seem to be creatures of temperament. Some of them are faithful nurses and some are callous mothers. They have been known to pick at chicks whose color didn't appeal to them. At best a hen can brood only from 10 to 20 chicks, depending on her size, and the warmth of the season. So, even on farms where poultry-raising is a side-line, chiefly intended to keep the family in eggs and table chickens, artificial brooders are being used more and more.

Perhaps some of my listeners have been wondering whether it pays to invest in brooding equipment for a small flock. The poultry specialists say that the use of brooder stoves reduces the cost of brooding and lessens labor,- that their use should be of considerable value on farms.

The most important factors in brooding, whether artificial or natural, are proper temperature, plenty of room, and sanitation. In natural brooding, a uniform temperature is supplied by the mother hen. Owing to the fact that she can cover only a limited number of chicks, there is little or no danger of crowding. In artificial brooding, the baby chicks sometimes crowd into the corners of the room, and smother each other, so it is often advisable to fence off the corners with wire netting.

One of the most frequent causes of failure in brooding chicks is lack of proper sanitation. Brood coops, brooders, and brooder houses are allowed to get very dirty, and sometimes are never disinfected. So chicks become infested with various poultry diseases caused by bacteria and parasites. Thorough disinfection of all equipment before the brooding season begins will do much to keep the chicks healthy. Saponified cresol solution is recommended.

The litter used in brooder coops or houses should be cleaned out at least once a week during the first three or four weeks. This is very important. Chicks often become contaminated from the soil on which they run. They should be brooded on land which has never been ranged before by older birds. A good grass range is desirable. Avoid bare land for brooding. The land immediately in front of the brooder house should be treated with lime, cultivated, and sowed to a crop. The importance of keeping the soil in the brooder field clean and sweet cannot be over-emphasized. When chicks are naturally brooded, the brood coops should be moved weekly to fresh ground, preferably where there is fresh grass.

As the chicks grow, and range further from the brood coop, it is especially necessary to keep them separated from the older hens in the flock. The larger birds take the feed away from them, and pick at them. The mother hen should be kept in a small covered yard, rather than be confined to a coop all the time. This gives her more freedom and keeps her in better condition. If she is allowed free range she may take the young chicks through wet grass and they become chilled and die.

As chicks grow they need more room, both in the poultry house and in the runs. When they are 10 to 12 weeks old the flock is easily thinned by separating the pullets and the cockerels. The young cockerels may be sold as broilers or fryers early in the season or as roasters in the fall, depending on their weight and when they were hatched.

Publications of the U. S. Department of Agriculture give findings of scientists and observations of poultry raisers on the best means of dealing with the many problems of poultry production on small or large scale. Listeners who wish information of this sort may write to the Department of Agriculture, Washington, D. C.

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